

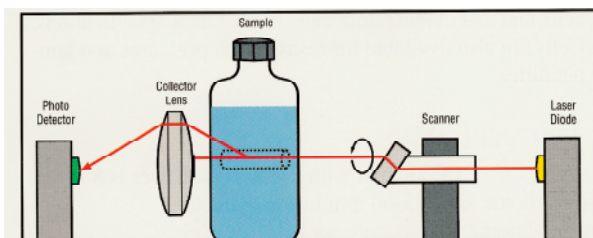
# PC-2200 SPECTREX LASER PARTICLE COUNTER



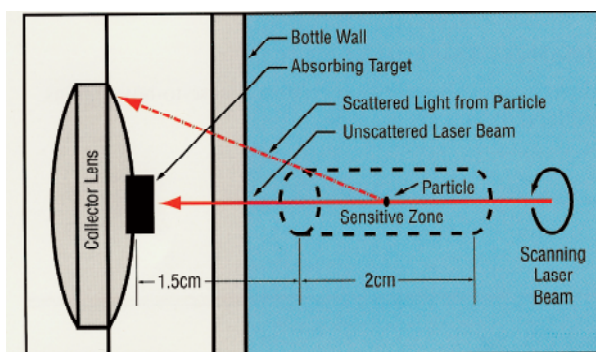
**Identifies Particle Quantity and Size from 0.5 to 100  $\mu\text{m}$  dia.  
Operates with both In-situ and Flowing Liquids.**



PC-2200



Optical Schematic of the Laser Particle Counter



Detailed Laser Optics

## FEATURES

- Easy Do-It-Yourself Calibration
- SuperCount® Software
- Compact & Portable (6 lbs)
- Quickly Counts & Sizes
- No Cross-contamination of Flow Lines
- Eliminates Sample Flushing
- Built in magnetic stirrer

## OPERATION THEORY

Utilizing the principle of “near angle light scatter,” a revolving laser beam passes through the walls of a glass container or a flow-thru cell. When it is directed through a central “sensitive zone” the PC-2200 not only counts the particles in suspension, but tabulates their size as well. The analog signals generated by the light pulses are routed to a computer and digitized.

## CALIBRATION

Spectrex provides three sealed calibration standards with each unit. Each standard contains a precise number of NIST traceable polystyrene spheres of known size in suspension and are sealed with inert Argon gas. These standards have a proven stability of more than 2 years and provide efficient calibration within 10 minutes.

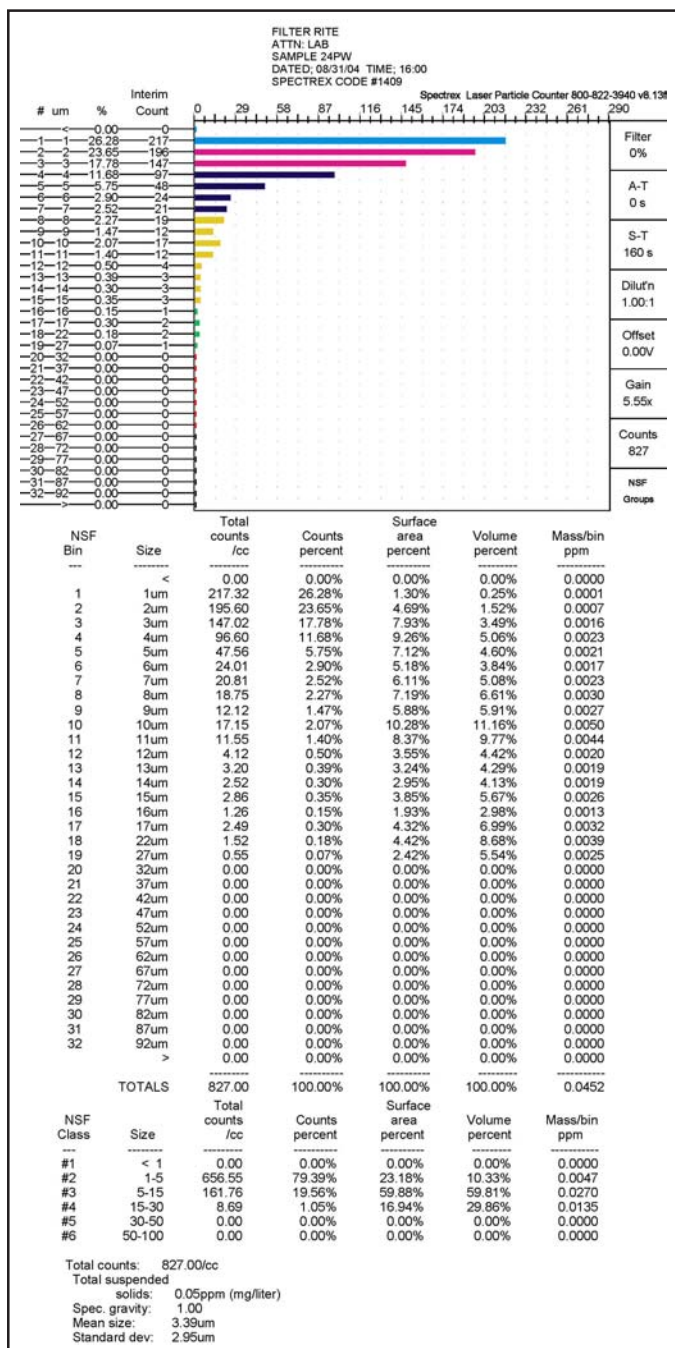
## APPLICATIONS

- Water Treatment Plants
- Hydraulic Fluids and Oil QC
- Silts and Sediment Sizing
- University Laboratories
- Pharmaceutical Manufacturers
  
- Oil Refineries and On-site drilling
- Bottling & Beverage Operations
- Oceanographic Studies
- Liquid Chromatography Solvent QC
- Cooling Power and Waste Water Filter Efficiency
  
- Particle Agglomeration Studies
- Particle Settling Characteristics
- Corrosive Chemical and Solvent Sizing
- Vial and Ampule Inspection
- De-ionized Water and Acid Testing
- Cell Counting

**SPECTREX**

CORPORATION

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Sample Print-out



The PC-2200 with Computer System

## SuperCount Software

Developed by Spectrex, the custom interfacing electronics and proprietary software provide an easy means of analyzing and saving data generated by the PC-2200. SuperCount® provides instant sizing information and generates a printout with count information and a histogram of size distribution in addition to indicating:

- Absolute Counts
- Mean Size
- Mass Distribution
- Percentage Distribution
- Standard Deviation
- Total Suspended Solids

The dilution factor can be automatically computed to give absolute counts for liquids as dense as sludge! SuperCount® also is loaded with a special bonus program for hydraulic fluids \* and Phi classifications. Auto-Mode Software for sequential reading at user selected intervals is available upon request. It is ideal for monitoring rates of change such as dissolution or agglomeration. \* NAS, SAE, and ISO classifications.

## OPTIONS

- **Opacity Meter** - provides an instantaneous measurement of the sample's opacity to correlate with computer calculations.
- **Small Vial Attachment** - follows for use of 5ml vials or ampules.
- **Flow-Thru Cell** - Spectrex stocks various sizes of flow-thru cells and can manufacture cells to customer specifications. Cells are also available for testing at high pressures and temperatures.

## SPECIFICATIONS

Size: 4.75" x 14" x 4.5" (height with Light Tight Cover is 5.5")  
Typical bottle size: 15-60 mm inside diameter  
Bottle Material: transparent, scratch-free glass  
Weight: 6 lbs  
Power: 115v 60Hz (230v optional)  
Detectable Particle Size: from 0.5µm - 100µm

## ORDERING INFORMATION

Order directly from Spectrex Corporation. Lease-to-buy options and quantity discounts are available.

SuperCount® is a registered trademark of the Spectrex Corporation.

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